

## WHAT IS CLAIMED IS:

## 1. A medical display, comprising:

a display device of a matrix type having a resolution of 100 to 300 ppi to display a medical image; and

at least one anti-reflection layer on a side of a front surface of said display device, wherein

said anti-reflection layer has an average specular reflectivity of 0.5% or less at an incident angle of  $5^\circ$  in a wavelength range of 450 to 650 nm,

said anti-reflection layer receives light from a CIE standard light source D65 at an incident angle of  $5^\circ$  in a wavelength range of 380 to 780 nm to reflect the light as regular reflection light whose color falls within a range of  $-7 \leq a^* \leq 7$  and  $-10 \leq b^* \leq 10$  in terms of  $a^*$  and  $b^*$  values of CIE 1976  $L^*a^*b^*$  color space, and

said anti-reflection layer is placed on a surface whose flatness is defined by an arithmetic average height  $R_a$  and a maximum height  $R_z$  according to JIS B 0601-2001, with  $R_a$  set at  $0.02 \mu\text{m}$  or less and  $R_z$  set at  $0.04 \mu\text{m}$  or less.

2. The medical display according to claim 1, wherein said anti-reflection layer in a form of an anti-reflection

film is formed on a support.

3. The medical display according to claim 2, wherein said anti-reflection film is spread over said front surface of the display device.

4. The medical display according to claim 2, wherein a protective panel is attached to said front surface of the display device in a manner that puts a distance between said protective panel and said front surface of the display device to avoid contact, and

wherein one of said anti-reflection film and said anti-reflection layer is placed on each side of said protective panel.

5. The medical display according to claim 2, wherein said anti-reflection film has a transparent support having a refractive index of  $n_B$ , a hard coat layer having a refractive index of  $n_H$  and being placed on the transparent support, and the anti-reflection layer being placed on the hard coat layer,

wherein said anti-reflection layer practically has three sub-layers of different refractive indexes, with an intermediate refractive sub-layer being closest to said

transparent support and having a refractive index of  $n_1$ , a high refractive sub-layer following said intermediate refractive sub-layer and having a refractive index of  $n_2$ , and a low refractive sub-layer being farthest to said transparent support and having a refractive index of  $n_3$ ,

wherein the refractive indexes of said three sub-layers satisfy the following relations,

$$n_3 < n_B, n_H < n_1 < n_2$$

wherein, at a design wavelength  $\lambda$  (500 nm), said intermediate refractive sub-layer, said high refractive sub-layer, and said low refractive sub-layer satisfy the following expressions (I), (II), and (III), respectively.

$$\lambda/4 \times 0.80 < n_1 \times d_1 < \lambda/4 \times 1.00 \quad (I)$$

$$\lambda/2 \times 0.75 < n_2 \times d_2 < \lambda/2 \times 0.95 \quad (II)$$

$$\lambda/4 \times 0.95 < n_3 \times d_3 < \lambda/4 \times 1.05 \quad (III)$$

(where  $d_1$  represents a thickness (nm) of the intermediate refractive sub-layer,  $d_2$  represents a thickness (nm) of the high refractive sub-layer, and  $d_3$  represents a thickness (nm) of the low refractive sub-layer.)

6. The medical display according to claim 1, wherein said anti-reflection layer is provided on said front surface of the display device.

7. The medical display according to claim 1, wherein said anti-reflection layer has such characteristics that the  $a^*$  value and the  $b^*$  value fulfill  $0 \leq a^* \leq 5$  and  $-7 \leq b^* \leq 0$ , respectively, and that the average specular reflectivity is 0.3% or less at the incident angle of  $5^\circ$  in the wavelength range of 450 nm to 650 nm.

8. The medical display according to claim 1, wherein a size of a display screen on said front surface of the display device is 18" to 23".

9. The medical display according to claim 1, wherein said display device is a monochrome display device.

10. The medical display according to claim 1, wherein a plane radiographic image obtained by CR (computed radiography) or using a flat panel sensor is displayed at a resolution of 100 to 180 ppi.

11. The medical display according to claim 1, wherein a mammographic image obtained by CR (computed radiography) or using a flat panel sensor is displayed at a resolution of 180 to 300 ppi.

12. A medical display system, comprising:  
a medical display displaying a medical image; and  
a luminance meter measuring luminance,  
wherein said medical display, comprising:  
a display device of a matrix type having a resolution  
of 100 to 300 ppi; and  
at least one anti-reflection layer on a side of a  
front surface of said display device,  
wherein said anti-reflection layer has an average  
specular reflectivity of 0.5% or less at an incident angle  
of 5° in a wavelength range of 450 to 650 nm,  
said anti-reflection layer receives light from a CIE  
standard light source D65 at an incident angle of 5° in a  
wavelength range of 380 to 780 nm to reflect the light as  
regular reflection light whose color falls within a range  
of  $-7 \leq a^* \leq 7$  and  $-10 \leq b^* \leq 10$  in terms of  $a^*$  and  $b^*$   
values of CIE 1976  $L^*a^*b^*$  color space, and  
said anti-reflection layer is placed on a surface  
whose flatness is defined by an arithmetic average height  
 $R_a$  and a maximum height  $R_z$  according to JIS B 0601-2001,  
with  $R_a$  set at 0.02  $\mu\text{m}$  or less and  $R_z$  set at 0.04  $\mu\text{m}$  or  
less, and  
wherein said medical display system has a function of  
measuring surface reflection luminance when a power is

turned off and display luminance when the power is turned on with said luminance meter, a function of judging measurement data and displaying judgment results, a function of saving the measurement data and the judgment results, and a function of correcting gradation based on the measurement data.

13. The medical display system according to claim 12, wherein said luminance meter is connected online and has a function of measuring the luminance in sync with display of a luminance measurement test pattern on a display screen of said display device.